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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Jean-Marc SARAT

Application No.: 09/048,009

Filed: March 26, 1998

For: VERSATILE INTERFACE SMART
CARD



Group Art Unit: 2781

Examiner: A. Etienne

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REQUEST FOR RECONSIDERATION

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

In response to the Office Action dated January 20, 2000, Applicant respectfully requests reconsideration and withdrawal of the rejections of the claims. The indication that claims 3, 14, 17, 20, 28 and 30 contain allowable subject matter is noted with appreciation.

Claims 1, 5, 8, 9, 11, 12, 15, 18, 23, 24, 26, 27, 29 and 31 were rejected under 35 U.S.C. §103 as being unpatentable over the newly cited Iijima patent. In addition, claims 2, 4, 13, 16 and 19 were rejected under 35 U.S.C. §103 as being unpatentable over the Iijima patent in view of the newly-cited Colnot patent. The Office Action states that Iijima patent discloses a multi-protocol smart card that includes a microprocessor and associated memory, and a plurality of contacts for transferring data to and from the microprocessor and memory. The Office Action states that the Iijima patent also discloses a set of mating contacts in an interface device, i.e. a card reader, which corresponds to a set of contacts in the smart card that are respectively associated with a set of signals conforming to a first

protocol. The Office Action goes on to acknowledge that the Iijima patent does not disclose a mode contact in the card interface that corresponds to another contact of the smart card, nor a mode signal generator for providing a signal which causes the microprocessor in the smart card to operate with a second protocol mode when the card is received at the interface device. The Office Action states that these features of the claimed invention “could be considered implicitly taught or strongly suggested by the reference,” on the grounds that one of ordinary skill in the art would have found it obvious to provide a mode contact and mode contact generator to cause the microprocessor to switch the operating mode or protocol. It is respectfully submitted, however, that the Iijima patent does not contain any such suggestion, either implicitly or otherwise, and that such a teaching can only be discerned from Applicant’s disclosure, and not the prior art.

The Iijima patent discloses an IC card which is capable of operating with a plurality of transmission protocols. As a first point, it is to be noted that each of the transmission protocols conforms to a given standard, i.e. ISO/IEC 7816-3 (column 1, lines 50-53). Since the protocols all conform to the same standard, they all employ the same set of contacts for transferring data between the IC card and the reader. Hence, the patent does not disclose a plurality of contacts which include “a first set of contacts respectively associated with a set of signals that conform to a first protocol, and at least one *other* contact for controlling said microprocessor to operate in accordance with a second protocol,” as recited in claim 1, for example. Rather, the patent only suggests the first set of contacts, but not the other contact.

The Iijima patent discloses that one of the transmission protocols is stored as a default protocol in a memory 12a. Referring to Figure 7, when the IC card is inserted in the reader, the reader supplies a reset signal, at step ST22. When the reset signal is received in the card, it transfers the default protocol to area 13a of the working memory, and then sends an answer-to-reset (ATR) signal to the reader that conforms to the protocol. Upon receipt of the ATR signal, the reader determines whether that signal conforms to its operating protocol, at step ST24. If so, the reader outputs a command to the card, and the operation continues in the normal fashion. If, however, the reader is not operating in accordance with the default protocol of the card, another reset signal is sent. In this case, the card responds to the new reset signal with a new ATR signal that conforms to another protocol. This process can continue in an iterative fashion, until the IC card and the reader are both operating with the same protocol. From the foregoing, therefore, it can be seen that the Iijima patent discloses an arrangement in which the switching between different transmission protocols is carried out at a software level. In essence, the card responds to a "warm" reset operation to switch among the various protocols that are stored within the card. This results in a type of "handshaking" routine between the card and the reader, which functions as a way to make them work together.

In contrast, in the system of the present invention, the particular protocol is determined by the reader, rather than the card. Specifically, the reader indicates the appropriate protocol to be used by selectively sending a mode signal to the card. In response to the presence or absence of this mode signal, the card places itself in the proper operating mode. This operating mode does more than merely determine the manner in

which data is transmitted between the card and the reader. Unlike the plural transmission protocols of the Iijima patent, the different operating modes of the present invention can determine the hardware configuration of the system as well, such as the appropriate power levels to be used, the contacts to be employed, etc.

A significant difference between the present invention and the system of the Iijima patent is that the present invention allows a single card to be used in an ISO-compliant mode and in a second mode which is outside the ISO standard. For example, the card can operate in accordance with the USB standard. In contrast, the Iijima patent only discloses a card which operates in accordance with the ISO standard.

In this regard, the rejection of claims 2, 4, 13, 16 and 19 refers to the Colnot patent, and alleges that it would be obvious to employ the teachings of this patent in the Iijima IC card. However, the Colnot patent is directed to a *contactless* data exchange system. There is no disclosure within the teachings of this patent that would suggest its applicability to the type of IC card arrangement described in the Iijima patent.

Furthermore, neither of the patents disclose, nor otherwise suggest, the concept of a mode contact which is other than the set of contacts that conform to a first protocol, e.g. the ISO protocol, and that is used to provide a signal which causes the microprocessor in the card to operate in accordance with a second protocol. As described previously, the card of the Iijima patent only operates in accordance with the ISO standard, and employs software mechanisms to determine the protocol to be employed. As such, there is no suggestion in the Iijima patent to employ a mode contact for causing the card to selectively operate in accordance with one protocol or another.

For the foregoing reasons, it is respectfully submitted that all pending claims are patentable over the prior art of record. In summary, there is no disclosure in the Iijima patent, either expressly or implicitly, which suggests the concept of selectively providing a mode signal to a user card from an interface device to cause the card to operate in one protocol or another, in dependence upon the presence or absence of that signal. Nor is there any disclosure which suggests the use of a mode contact, which is other than the set of contacts that are employed for a first protocol, to provide the signal that causes the card to operate in accordance with a second protocol.

Reconsideration and withdrawal of the rejections of the claims, and allowance of all pending claims are respectfully requested.

Respectfully submitted,

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